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A.D. 1887, 20th SEPTEMBER. N° 12,732.

COMPLETE SPECIFICATION.

Improvements in Stretchers for Invalids.

I, HORACE HOLDEN JUDSON, of Stratford, Connecticut, United States of America, manufacturer, do hereby declare the nature of my invention for "IMPROVEMENTS IN STRETCHERS FOR INVALIDS," and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

5 My invention has for its object to produce a stretcher for moving invalids, or patients to be operated upon without lifting them from the sheet, it being of obvious importance that such a device be simple in construction, of little cost, and easily managed. It is of course well understood that in all classes of serious illness or injury it is frequently necessary that the patient should be lifted from the bed. This has in
10 many cases had to be done by main strength, that is, by lifting the patient in the arms, which in many cases causes intense suffering to the patient, and in the case of adults, requires great physical strength on the part of the person or persons lifting the patient. The most important result accomplished by my invention is, that I am enabled to avoid all lifting of the patient by main strength, and provide a
15 simple means for moving the patient without the necessity of his being lifted from the sheet upon which he is lying. This I accomplish by the simple and novel construction of which the following description in connection with the accompanying drawing is a specification, numbers being used to indicate the several parts.

Fig. 1, is a plan view illustrating the several parts of the stretcher detached.
20 Fig. 2, a similar view illustrating the manner in which the stretcher is used, and Fig. 3, is a cross section on the line *x x* in Fig. 2.

My novel stretcher consists of four parts, and a supporting piece which may be the usual under sheet of a bed. The parts are two side strips denoted by 1, and two holding braces denoted by 2. The supporting piece is denoted by 3.
25 The side strips are made alike and may be of any desired form. I preferably make the main portion angular as at 4, provide at each end reduced squared portions 5, which are engaged by the braces, and also handles 6, for convenience in use. These side pieces may be made of metal or wood, but preferably of light, strong wood. The braces are preferably made of metal, and bifurcated at their ends to enable them
30 to engage the side pieces firmly. The braces may be made in a single piece, if preferred, but I ordinarily make each brace of two pieces, and provide a joint 7, at the

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Judson's Improvements in Stretchers for Invalids.

center made like a carriage joint, as at the left in Fig. 2, or else form right and left screw threads respectively at the ends of the parts which are engaged by corresponding threads in a nut 8, as in Fig. 1, and at the right in Fig. 2. The operation of my improved stretcher is as follows, two persons only being required to move an adult from a bed with ease and without jarring the patient. The portions of the sheet at the head and foot of the bed are designated in the drawing by 3a, that is, the portions of the sheet that are ordinarily tucked around the mattress at the head and foot of the bed. In using the stretcher they are folded over as shown in both Figs. Each of the side pieces is then taken by the attendants and rolled up in the sheet as clearly shown in Figs. 2, and 3. As the side pieces are ordinarily made angular, and the sheet is doubled over at both ends no additional devices whatever are required to secure the sheet to the side pieces. When the sheet has been rolled sufficiently on both sides as in Fig. 2, the braces are placed in engagement with portions 5, of the side strips, the effect of which is to hold the side pieces firmly, thereby making of the side pieces, braces, and sheet, a perfectly firm and stable stretcher upon which the patient may be raised from the bed, and carried any distance without difficulty. Where the brace is provided with a joint as at the left in Fig. 2, the operation is simply to engage the ends of the brace with the reduced portions of the side strips and then spring the brace inward from the position shown in dotted lines to the position in full lines. When the right and left threaded nut is used, as at the right, the nut has to be turned sufficiently to throw out the two parts of the brace until the side pieces are caused to take up the slack in the sheet.

Having now particularly described and ascertained the nature of my said Invention, and in what manner the same is to be performed, I declare that what I claim is:—

1st. A stretcher consisting of a supporting piece, as a sheet, side strips adapted to be rolled in said supporting piece from opposite sides, and braces at opposite ends which engage the side strips whereby the latter are held firmly in position.

2nd. A stretcher consisting of a supporting piece as a sheet, two side strips adapted to be rolled in the sheet from opposite sides and adjustable braces which engage the side strips to hold them firmly and press them outward to take up the slack in the sheet.

3rd. The combination with a supporting piece as a sheet, of side strips having angular portions 4, reduced squared portions 5, and handles 6, and adjustable braces bifurcated at their ends, the parts of which are forced outward by a right and left threaded nut.

Dated this 20th day of September 1887.

ALLISON BROS.,
Agents for the Applicant.

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Fig. 1.

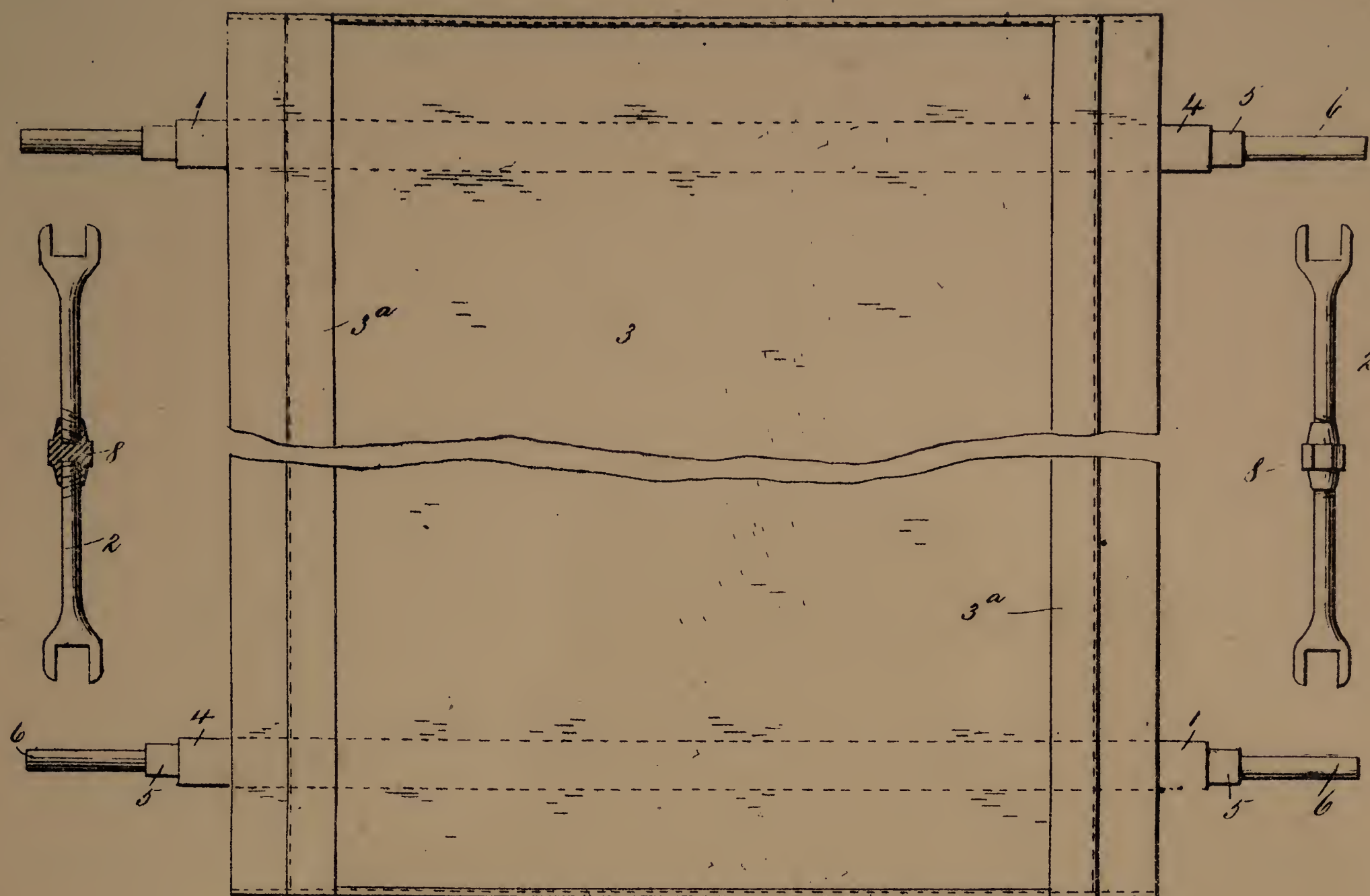


Fig. 2.

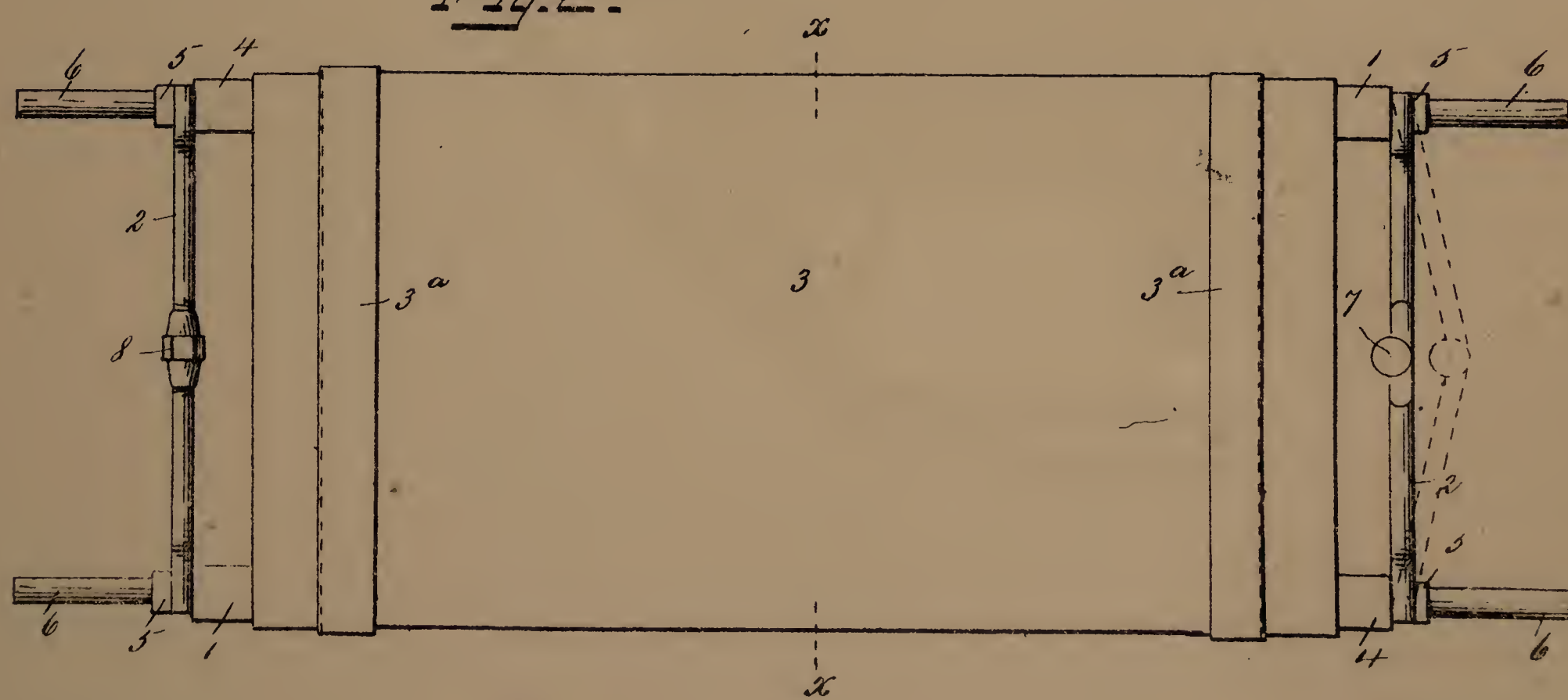
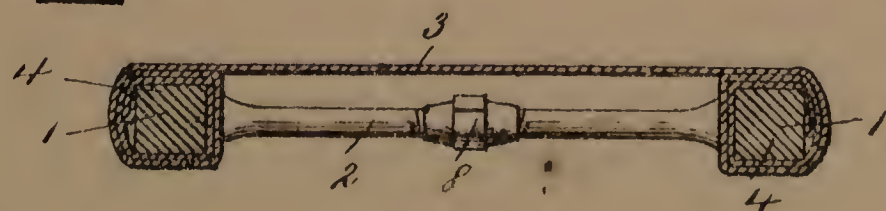


Fig. 3.



[This Drawing is a reproduction of the Original on a reduced scale]

